



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

HM42/0414

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/900,746	07/25/97	031	AMBROSE, M 1613	04/14/98
First Named Applicant	ARIMILLI, MURTY N.			

TITLE OF INVENTION: ANTIVIRAL PHOSPHONOMETHOXY NUCLEOTIDE ANALOGS HAVING INCREASED ORAL BIOAVAILABILITY (AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1 221.P1	514-081.000	C94	UTILITY	YES	\$660.00	07/14/98

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Notice of Allowability

Application No.
08/900,746

Applicant(s)
Murty N. Arimilli et al.

Examiner
Michael G. Ambrose

Group Art Unit
1613



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☐ This communication is responsive to _____.

☒ The allowed claim(s) is/are 1-23 and 25-32.

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☐ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5,6

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Daryl Muenchau on April 10, 1998. The amendment corrects improper claim dependency, provides antecedent basis for the compound reference in claims 27 and 28, and cancels a claim that does not conform with current U.S. claim practice.

The application has been amended as follows:

Cancel claim 24.

In claim 27, line 1, insert — of claim 1 — after “formula (1a)”.

In claim 28, line 1, insert — of claim 2 — after “formula (1)”.

In claim 29, line , change “claim 30” to — claim 28 —.

In claim 30, line 1, change “claim 31” to — claim 28 —.

Change the title to: “Antiviral Phosphonomethoxy Nucleotide Analogs Having Increased Oral Bioavailability”

The following is an examiner's statement of reasons for allowance:

This invention relates to a new bioreversible protecting group for certain known antiviral agents derived from phosphonomethoxy nucleotide analogs (i.e., new prodrug

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forms of these compounds). The class of compounds for which the present invention is applicable are described on page 5, lines 19-28. The derivatives are esters of a known phosphonic acid antiviral pharmacological agent with carboxyoxymethanol or carbamyloxymethanol; the hydrogen atom attached to the second oxygen of the carboxyoxy (HOC(O)O-) moiety and to one or both nitrogens of the carbamyloxy (H₂NC(O)O-) moiety may be substituted as described in claim 1. Examples 15 and 16 relate to investigational studies of the bioavailability of (R)-9-[2-(phosphonomethoxy)propyl]adenine (PMPA) when derivitized in the manner set forth in this application and also increased antiviral activity resulting from administration of a prodrug form of PMPA as described herein. The prior art does not teach or suggest that carboxyoxymethoxy and carbamyloxymethoxy moieties may be used as phosphonic acid bioreversible protecting groups.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Telephone and Facsimile Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael G. Ambrose whose telephone number is (703) 308-4529. The examiner can normally be reached on Tuesday through Friday from 8:30 AM to 6:00 PM. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter, can be reached on (703) 308-4532. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Very respectfully,



Michael G. Ambrose, Ph.D.

Primary Examiner

Patent Examining Group 1610

Technology Center 1600